

ABSTRACT

5 A clustered enterprise Java™ distributed processing system is
provided. The distributed processing system includes a first and a
second computer coupled to a communication medium. The first
computer includes a Java™ virtual machine (JVM) and kernel
software layer for transferring messages, including a remote Java™
virtual machine (RJVM). The second computer includes a JVM and a
kernel software layer having a RJVM. Messages are passed from a
RJVM to the JVM in one computer to the JVM and RJVM in the
10 second computer. Messages may be forwarded through an
intermediate server or rerouted after a network reconfiguration. Each
computer includes a Smart stub having a replica handler, including a
load balancing software component and a failover software
component. Each computer includes a duplicated service naming
15 tree for storing a pool of Smart stubs at a node. The computers may
be programmed in a stateless, stateless factory, or a stateful
programming model. The clustered enterprise Java™ distributed
processing system allows for enhanced scalability and fault tolerance.